AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning on page 2, line 16 with the following amended paragraph:

A RLC/MAC layer protocol of the GPRS is described in the document 3GPP TS 44 060 V4.5.0 (2002-02) [2]. A R-LC/MAC block is a protocol data unit exchanged between RLC/MAC entities, and a RLC/MAC control block is a part of a RLC/MAC block carrying a control message between RLC/MAC entities or RLC data block is a part of a RLC/MAC block carrying user data or ~~signalling~~ signaling data of upper layers. The RLC layer defines the procedures for segmentation and reassembly of LLC PDUs into RLC/MAC blocks and the RLC layer provides also link ~~adapatation~~ adaptation. The RLC/MAC is responsible for transmitting LLC PDUs over the radio interface using a Temporary Block Flow (TBF), which is a physical radio connection supporting the unidirectional transfer of LLC PDUs between a MS and the network. A LLC PDU contains user data or GPRS protocol related ~~signalling~~ signaling messages, such as a GMM ~~signalling~~ signaling message (GMM/SM). A MS may have an uplink TBF (UL TBF), a downlink TBF (DL TBF) or an uplink and downlink TBF established at any time. When a transfer mode of LLC PDUs terminates, in either uplink or downlink direction, the corresponding TBF is released and the MS returns to packet idle mode. When a transfer mode of LLC PDUs terminates but there exists an on-going LLC PDU transfer to the other direction, the MS stays in transfer mode.

Please replace the paragraph beginning on page 3, line 14 with the following amended paragraph:

According to the Technical Specifications 3GPP TS 44 064 V 4.3.0 [1] the RLC shall deliver LLC PDUs received from the upper layers in the same order as they were received from the upper layers. This means that LLC PDUs are delivered in the same order as received from the upper layers (i.e. LLC layer),

regardless of the fact that some LLC PDUs may have e.g. higher priority than other LLC PDUs. This is a big problem when transferring e.g. real-time or other delay sensitive data over the radio interface, because ~~also this~~ the data, despite [[of]] its high priority, have to hold on the transmitting queue of in-order ~~delivary~~ delivery. This may impair the QoS of the application.

Please replace the paragraph beginning on page 3, line 23 with the following amended paragraph:

The LLC allows data transfer with different service criteria, such that high-priority data transfers may take precedence over lower-priority data transfers to the same MS. A LLC PDU has certain QoS characteristics concerning the RLC mode, priority, throughput, etc. When streaming data or otherwise delay sensitive data, such as speech, is transferred over the GPRS network, it should be delivered before e.g. best effort data, such as FTP (File Transfer Protocol) data or web surfing, to ensure the QoS. Otherwise the service suffers bad quality. Recently an ~~intrest~~ interest towards transferring delay sensitive data over the GPRS network is rising.

Please replace the paragraph beginning on page 3, line 31 with the following amended paragraph:

An example is now provided to describe the current state of the prior art. Assume that the RLC/MAC of the MS first receives three short LLC PDUs from a delay sensitive application that needs to be transmitted using the RLC UNACK mode. After this the RLC/MAC receives two long, e.g. 1500 octet each, LLC PDUs containing FTP data that needs to be transmitted using the RLC ACK mode. Then after this the RLC/MAC again receives three short LLC PDUs from the delay sensitive application that needs to be transmitted using the RLC UNACK mode. When changing a transfer mode from the RLC UNACK mode to

the RLC ACK mode, first an existing TBF is released, then a new TBF is established and then FTP traffic LLC PDUs are transferred in RLC data blocks. After this a transfer mode is changed from the RLC ACK mode to the RLC UNACK mode again by releasing existing TBF and establishing new TBF, and then a transfer of data packets of the delay sensitive application may continue. A time needed to transfer FTP traffic LLC PDUs in the RLC data block depends on the number of assigned uplink PDCHs. The elapsed time also depends on a channel coding scheme used to transfer RLC data blocks over the radio ~~inferface~~ interface and how frequently the TBF is assigned sending permissions. In this example, a transfer of two 1500 octet long LLC PDUs in the RLC ACK mode between the delay sensitive data packets may take several seconds. The gap of several seconds will result in that delay sensitive applications will substantially suffer from the FTP transfer.

Please replace the paragraph beginning on page 5, line 6 with the following amended paragraph:

at a certain protocol layer, receiving a first packet data message from an upper protocol layer, which first packet data message belongs to a first packet data protocol (PDP) context characterised by ~~eaertain~~ certain first connection information,

Please replace the paragraph beginning on page 6, line 17 with the following amended paragraph:

delivering said first packet data message and said second data ~~data~~ message further from said certain protocol layer in reordered order.

Please replace the paragraph beginning on page 8, line 12 with the following amended paragraph:

In FIG. 1 a MS 10 may be a handheld radiotelephone, such as a cellular phone, a personal communicator or alike. The MS 10 typically includes a microcontroller unit (MCU) 11 coupled to a display unit 12 and a keyboard unit 13 for a user interface (as well as a microphone and speaker). The MS 10 also contains a digital signal processor (DSP) 17 or equivalent, and a wireless ~~tranceiver~~ transceiver unit 18 including transmitter, receiver and antenna 19 functions. The MCU 11 is connected to a memory 14 for storing an operation program, received packet data, packet data to be transmitted, and the like. In association with the memory 14 is a buffer unit 15 for storing packet data messages into a transfer queue and for delivering packet data messages from the buffer to provide an in-order delivery of packet data messages according to the present invention.

Please replace the paragraph beginning on page 10, line 10 with the following amended paragraph:

Then the MS 10 in step 203 sends to the network "Activate PDP Context Request" message. The RLC/MAC unit 11a transfers this LLC PDU message consisting a LLC header including a SAPI to the RLC/MAC unit 54a locating in the BSC 54 where it is transmitted to the SGSN 55 according to step 204. LLC unit 55b identifies the SAPI from the LLC header of the LLC PDU message. Then the LLC unit 55b moves a data content of the LLC PDU to the GMM/SM unit 55d according to the SAPI. Next, the GMM/SM unit 55d either accepts or rejects the request by transmitting a message "Activate PDP Context Accept" (step 205) or "Activate PDP Context Reject" (step [[207]] 206). If the GMM/SM unit 55d accepts the PDP context activation, all information needed to route a user data is available to all GPRS network entities. E.g. a GGSN knows the IP

address to be used and can route user data packets to the right SGSN serving the MS (GGSN is unaware of LLC). In association with activating PDP context QoS characteristics are also defined for the PDP context (and user data transferred using the PDP context).

Please replace the paragraph beginning on page 11, line 4 with the following amended paragraph:

When transferring user data a SNDCP unit 55c becomes active ~~in stead~~ instead of a GMM unit 55d. In step 209 a SNDCP unit 55c receives a user data packet. Then it segments a user data packet and transfers it to the LLC unit 55b. The user data packet carries a NSAPI identifier of the PDP context. A NSAPI is one way to identify data belonging to different PDP context. Because a SNDCP and LLC share an internal interface, the LLC unit knows on the basis of the NSAPI to which LLC SAPI the user data packet must be connected. After this the LLC unit 55b packs the user data packet to a LLC PDU message containing the user data a LLC header and a frame check sequence (FCS). FCS is used to detect bit errors in the frame header and user data field. In this phase the LLC unit 55b labels the LLC PDU message with a LLC window number, on the basis on which a receiving LLC unit 11b can process the LLC PDU message properly. The LLC unit 55b then passes the LLC PDU message to the RLC/MAC unit 54a. The LLC PDU message contains information how the RLC/MAC unit has to process it. This information includes e.g. a RLC mode, throughput and priority information. According to this information RLC/MAC unit 54a is able to transfer the LLC PDU over the radio in appropriate way. A new TBF may not have to be established in case there already exists one.

Please replace the paragraph beginning on page 12, line 19 with the following amended paragraph:

Throughput of RT data should be ensured and NRT data should be buffered in case there is RT data to be transmitted. An advantage of reordering LLC PDUs compared to the FTP example described in the background section of prior art is that RT data is transmitted before NRT data and thus RLC mode doesn't have to be changed in the middle of the TBF (TBF release and establishments) in case RT ~~dat~~ data and NRT data use different RLC mode.

Please replace the paragraph beginning on page 13, line 26 with the following amended paragraph:

In the receiving end a SNDCP unit 11c receives a LLC PDU containing user data packet. Then it segments a user data packet and transfers it to the LLC unit 11b. LLC PDUs are ~~bufferred~~ buffered into the transfer queue 15 in association with the memory 14. When a LLC unit 55b sends a LLC PDU to peer LLC unit 11b via RLC/MAC, a LLC unit 11b receiving the transmitted LLC PDU checks that it receives LLC PDUs in-sequence order, what is needed not to break the operation of the LLC layer. This checking is based on a window number inside a LLC header of the LLC PDU. The window number is also used to check if received LLC PDU is a ~~dublicate~~ duplicate or a new LLC PDU. The window number increments by one (1) every time when a new LLC PDU is transmitted from LLC unit 11b to the RLC/MAC unit 11a and thus LLC unit 11b checks that the window number of a received LLC PDU also increments in-sequence order (1, 2, 3, . . .). Each LLC SAPI has its own series of window numbers, i.e. LLC SAPI 1 has window numbers (1, 2, 3, . . .), LLC SAPI 2 (1, 2, 3, . . .), . . . , LLC SAPI 5 (1, 2, 3, . . .), etc. In case the window number of the received LLC PDU increments in-sequence order, the LLC PDU is transferred to the transfer queue buffer 15. If the window number of the received LLC PDU (e.g. 1) was smaller

than that of the previous LLC PDU (e.g. 50), i.e. the in-sequence order in not valid, the received LLC PDU may be discarded. The RLC/MAC unit 11a only transfers the LLC PDU message and it doesn't concern the contents of the LLC PDU message.